

CLAIMS

- 1- An HCV protein, or any functionally equivalent part thereof, comprising at least two Cys-amino acids, which have a reversible redox status, and said Cys amino acids are comprised in the amino acid sequence Cys-X₁-X₂-Cys, in which amino acid X₁ denotes any amino acid, and amino acid X₂ denotes any amino acid.
- 2- The HCV protein, or any functionally equivalent part thereof, according to claim 1, in which amino acid X₁ denotes either amino acid Val, Leu or Ile, and amino acid X₂ denotes any amino acid.
- 3- The HCV protein, or any functionally equivalent part thereof, according to claim 1, in which amino acid X₁ denotes any amino acid, and amino acid X₂ denotes amino acid Pro.
- 4- The HCV protein, or any functionally equivalent part thereof, according to claim 1, in which amino acid X₁ denotes either amino acid Val, Leu or Ile, and amino acid X₂ denotes amino acid Pro.
- 5- The HCV protein, or any functionally equivalent part thereof, according to claim 1, in which said HCV protein is chosen from the group E1s or E1p.
- 6- An HCV protein, or any functionally equivalent part thereof, comprising at least two Cys-amino acids, which have a reversible redox status, according to any of claims 1 to 5, obtainable by the following process:
 - (a) purifying an HCV protein, or any functionally equivalent part thereof, in which the cysteine residues are reversibly protected by chemical and/or enzymatic means,
 - (b) removal of the reversibly protection state of the cysteine residues,
 - (c) obtaining an HCV protein, or any functionally equivalent part thereof, in which the cysteine residues have a reversible redox status.
- 7- The HCV protein, or any functionally equivalent part thereof, according to any of claims 1 to 6 for use as a medicament.
- 8- Use of the HCV protein, or any functionally equivalent part thereof, according to any of claims 1 to 6 for the manufacture of an HCV vaccine composition, in particular a therapeutic vaccine composition or a prophylactic vaccine composition.
- 9- The HCV protein, or any functionally equivalent part thereof, according to any of claims 1 to 7, for raising antibodies, that specifically recognise said HCV protein, or any functionally equivalent part thereof.

-10- Immunoassay for detecting HCV antibody, which immunoassay comprises:

(1) providing the HCV protein, or any functionally equivalent part thereof, according to any of claims 1 to 7;

5 (2) incubating a biological sample with said HCV protein under conditions that allow formation of HCV antibody-HCV protein complex;

(3) determining whether said HCV antibody-HCV protein complex is formed.

-11- A bioassay for identifying compounds that modulate the oxido-reductase activity of HCV proteins according to any of claims 1 to 7, said bioassay comprising:

(a) exposing cells expressing HCV proteins, or any functionally equivalent part thereof, according to any of claims 1 to 7 to at least one compound whose ability to modulate the oxido-reductase activity of said proteins is sought to be determined; and thereafter

15 (b) monitoring said proteins for changes in oxido-reductase activity.